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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,080	04/25/2001	Takayuki Kurozumi	034620-092	5959

7590 08/19/2005
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EXAMINER

ZHENG, EVA Y

ART UNIT PAPER NUMBER

2634

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/841,080

Applicant(s)

KUROZUMI ET AL.

Examiner

Eva Yi Zheng

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 2,7,12,17 and 21-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1,3-6,8-11,13-16 and 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/25/01, 12/16/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1. The request filed on July 25, 2005, for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/841,080 is acceptable and a RCE has been established. An action on the RCE follows.

Claim Objections

2. Claims 1 and 11 are objected to because of the following informalities:
- a) Regarding claim 1, on line 19, please deletes word: "and" at the end of a distortion adding step.
 - b) Regarding claim 1, on line 24, please deletes word: "and" and change comma to a semicolon at the end of a histogram collating step.
 - c) Regarding claim 11, on line 20, please deletes word: "and" at the end of a distortion adding section.
 - d) Regarding claim 11, on line 25, please deletes word: "and" and change comma to a semicolon at the end of a histogram collating section.
 - e) Regarding claim 11, on line 31, please deletes word: "and".
- Appropriate correction is required.

Allowable Subject Matter

3. Claims 1, 3-6, 8-11, 13-16, and 18-20 would be allowable if rewritten to overcome the objections, set forth in this Office action.
4. The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art teaches or suggests signal detection system as the current application. In more specific, US Paten 6,826,350 by Kashino et al. is a very close prior art. Kashino et al. disclose a feature quantity sequence as a reference, determine an input feature quantity signal, and calculate the signal degree of similarity between the reference and input feature quantity sequence. However, Kashino et al. fails to comprise a distortion or noise addition device in signal searching system. The current application overcome the prior art by a distortion adding step to the at least one of the reference time-series signal, the input time-series signal, the reference feature time-series signal, the input feature time-series signal, the reference coded time-series signal, and the input coded time-series signal. Moreover, in the distortion addition step: the added distortion is generated using random numbers; an amount of distortion used for distorting features is modeled using a normal distribution, wherein parameters in the modeling are the amount of parallel translation and the variances; and the distortion is added using at least one of the amount of parallel translation and the variance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. This application is in condition for allowance except for the following formal matters:

See description above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571 272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 17, 2005

Eva Yi Zheng
Examiner
Art Unit 2634



**SHUWANG LIU
PRIMARY EXAMINER**